

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the instant application:

**Listing of Claims:**

1. (Currently Amended) A method for evaluating system behavior of an application domain within a grid environment comprising the steps of:

identifying a host software object within a computing resource of said application domain, said computing resource within one grid of said grid environment;

associating a ghost software object within said one grid with said host software object, wherein said associated ghost software object replicates said host software actions within said one grid, and wherein said associated ghost software object records said replicated actions;

~~within said associated software object, replicating host actions;  
recording said replicated actions;~~

moving said host software object from said computing resource in said one grid within said grid environment to another computing resource, said another resource within another grid within said grid environment; and,

responsively moving said associated ghost software object in accordance with movement of said host software object from said one grid to said another grid.

2. (Original) The method of claim 1, further comprising the step of:

determining usage statistics for said application domain based at least in part upon said recorded actions;

3. (Cancelled)

4. (Original) The method of claim 2, further comprising the step of:  
optimizing performance of said application domain based upon said usage statistics.
5. (Original) The method of claim 1, wherein said replicated actions are passive actions, said method further comprising the step of:  
preventing said replicated actions from operationally executing in said grid environment.
6. (Currently Amended) The method of claim 1, further comprising the steps of:  
determining a location for logging data that is external to said associated ghost software object; and,  
conveying said recorded replicated actions to said determined location.
7. (Currently Amended) The method of claim 1, further comprising the steps of:  
disassociating said associated ghost software object from said host software object; and,  
associating said ghost software object with a different host software object within said another computing resource within said application domain.
8. (Currently Amended) The method of claim 1, further comprising the steps of:  
cloning said associated ghost software object to create a copied object; and,  
associating said cloned object with a different host software object within said application domain.

9. (Currently Amended) The method of claim 1, further comprising the steps of:  
selecting a plurality of host software objects within said application domain; and,  
for each said selected host software object, repeating said associating step, said  
replicating step, and said recording step.

10. (Currently Amended) A system for logging application domain information  
within a grid environment comprising:

an application domain, wherein said application domain comprises a plurality of  
~~that utilizes~~ computing resources from a plurality of different grids in said grid  
environment for executing actions of at least one host software object, [[;]]

~~at least one host software object configured to execute actions within said~~  
application domain, wherein different ones of said executed actions are executed within  
different grids of said grid environment, [[;]] and [[,]]

wherein said application domain associates at least one ghost agent with said at  
least one host software object, wherein said at least one ghost agent is configured to  
replicate and record said executed actions for an of said associated host software object,  
and wherein in response to moving said associated host software object from one  
computing resource in one grid of said grid environment to another computing resource  
in a another grid of said grid environment said associated ghost agent is also moved from  
said one computing resource to said another computing resource.

11. (Currently Amended) The system of claim 10, wherein said at least one host  
software object comprises a plurality of host software objects, and wherein said at least  
one ghost agent comprises a plurality of said ghost agents.

12. (Currently Amended) The system of claim 11, said application domain further comprising:

an application domain data store configured to receive messages from said ghost agents.

13. (Currently Amended) The system of claim 11, said application domain further comprising:

an application analyzer configured to analyze application-specific data gathered by said ghost agents.

14. (Currently Amended) A computer-readable storage medium having stored thereon, a computer program having a plurality of code sections executable by a machine for causing the machine to perform the steps of: ghost agent comprising:

recording in a ghost log of a ghost agent associated with a host software object configured to record application-specific activities performed by [[a]] said host software object in different grids of a grid environment;

a ghost identifier configured to identify said ghost agent to components within [[a]] said grid environment using a ghost identifier of said ghost agent; and,

a ghost controller for managing interactions between said ghost agent and said grid environment using a ghost controller of said ghost agent, wherein in response to said host software object moving from one grid to another grid in said grid environment said ghost controller moves said ghost agent from said one grid to said another grid within said grid environment.

15. (Cancelled)

16. (Currently Amended) The storage medium ~~ghost agent~~ of claim 14, further comprising code sections for:

~~means for~~ disassociating said ghost agent from said host software object; and,

~~means for~~ linking said disassociated ghost agent to a different host software object.

17. (Currently Amended) A machine-readable computer-readable storage medium having stored thereon, a computer program having a plurality of code sections, said code sections executable by a machine for causing the machine to perform the steps of:

identifying a host software object within a computing resource of an [[said]] application domain, said computing resource within one grid of a grid environment;

associating a ghost software object within said one grid with said host software object, wherein said associated ghost software object replicates said host software actions within said one grid and wherein said associated ghost software object records said replicated actions;

~~within said associated software object, replicating host actions;~~

~~recording said replicated actions;~~

moving said host software object from said computing resource in said one grid within said grid environment to another computing resource, said another resource within another grid within said grid environment; and,

responsively moving said associated ghost software object in accordance with movement of said host software object from said one grid to said another grid.

18. (Currently Amended) The machine-readable computer-readable storage medium of claim 17, further comprising the step of:

determining usage statistics for said application domain based at least in part upon said recorded actions.

19. (Cancelled)

20. (Currently Amended) The ~~machine-readable~~ computer-readable storage medium of claim 18, further comprising the step of:

optimizing performance of said application domain based upon said usage statistics.

21. (Currently Amended) The ~~machine-readable~~ computer-readable storage medium of claim 17, wherein said replicated actions are passive actions, said method further comprising the step of:

preventing said replicated actions from operationally executing in said grid environment.

22. (Currently Amended) The ~~machine-readable~~ computer-readable storage medium of claim 17, further comprising the steps of:

determining a location for logging data that is external to said associated software object; and,

conveying said recorded replicated actions to said determined location.

23. (Currently Amended) The ~~machine-readable~~ computer-readable storage medium of claim 17, further comprising the steps of:

disassociating said associated software object from said host software object; and,

associating said software object with a different host software object within said application domain.

24. (Currently Amended) The ~~machine-readable~~ computer-readable storage medium of claim 17, further comprising the steps of:

cloning said associated software object to create a copied object; and,  
associating said cloned object with a different host software object within said application domain.

25. (Currently Amended) The ~~machine-readable~~ computer-readable storage medium of claim 17, further comprising the steps of:

selecting a plurality of host software objects within said application domain; and,  
for each said selected host software object, repeating said associating step, said replicating step, and said recording step.

26. (Currently Amended) A system for evaluating system behavior of an application domain within a grid environment comprising the steps of:

identifying a host software object within a computing resource of said application domain, said computing resource within one grid of said grid environment;

associating a ghost software object within said one grid with said host software object, wherein said associated ghost software object replicates said host software actions within said one grid and wherein said associated ghost software object records said replicated actions;

within said associated software object, replicating host actions;  
recording said replicated actions;

moving said host software object from said computing resource in said one grid within said grid environment to another computing resource, said another resource within another grid within said grid environment; and,

responsively moving said associated ghost software object ~~in accordance with movement of said host software object from said one grid to said another grid.~~